

REMARKS/ARGUMENTS

Claims 1, 7, 12, and 15 have been amended. No claims are canceled or added by this response.

Claims 7, 9, and 10 have been rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 4,802,441 to Waugh ("the Waugh patent"). Claims 1, 2, 4-5, 7, 9-10, 12, and 14 were rejected under 35 U.S.C. §102(b) as being anticipated by U.S. patent No. 6,435,869 to Kitamura ("the Kitamura patent"). Claims 6, 11, 15-16, and 18-20 were rejected under 35 U.S.C. §103(a) as being unpatentable over the Kitamura patent taken in combination with U.S. Patent Publication No. 2004/0009644 to Suzuki ("the Suzuki publication").

The references relied upon by the Examiner, taken alone or even in combination, fail to disclose or suggest each and every feature of annealing a semiconductor substrate in the manner claimed. For example, each of the methods of independent claims 1, 7, 12, and 15 have now been amended to recite providing a temperature of cooling gas(es) at below room temperature. There is no teaching in the references to provide a gas at below room temperature.

The Waugh patent relied upon by the Examiner describes a particular furnace architecture in which walls of the furnace are exposed to a flow of a gas such as nitrogen. There is no teaching, or even suggestion in this reference, to provide the flow of gas at lower than room temperature.

The Kitamura patent relied upon by the Examiner describes a chamber architecture including a quartz window, wherein a flow of a cooling gas such as air or helium is flowed. Again, there is no teaching, or even suggestion, that such cooling gases be provided at lower than room temperature.

In order to provide the teaching absent in the Kitamura patent, the Examiner has combined the Kitamura patent with the Suzuki patent. However, the Suzuki patent also fails to teach or even suggest providing a flow of a cooling gas at below room temperature.

Because the references relied upon by the Examiner fail to teach or suggest each of the elements of the pending claims, it is respectfully asserted that continued rejection of the claims as anticipated or obvious is improper, and these claim rejections should be withdrawn.

Response to Office Action Mailed September 9, 2005

In conclusion, the Examiner has indicated the allowability of the subject matter of claims 3, 8, 13, and 17, if amended to incorporate the elements of the parent independent claim. For at least the reasons stated above, Applicants assert the patentability of these parent independent claims, and therefore decline to amend the dependent claim claims in the suggested manner.

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested. If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 650-326-2400.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Kent J. Tobin', with a long horizontal flourish extending to the right.

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